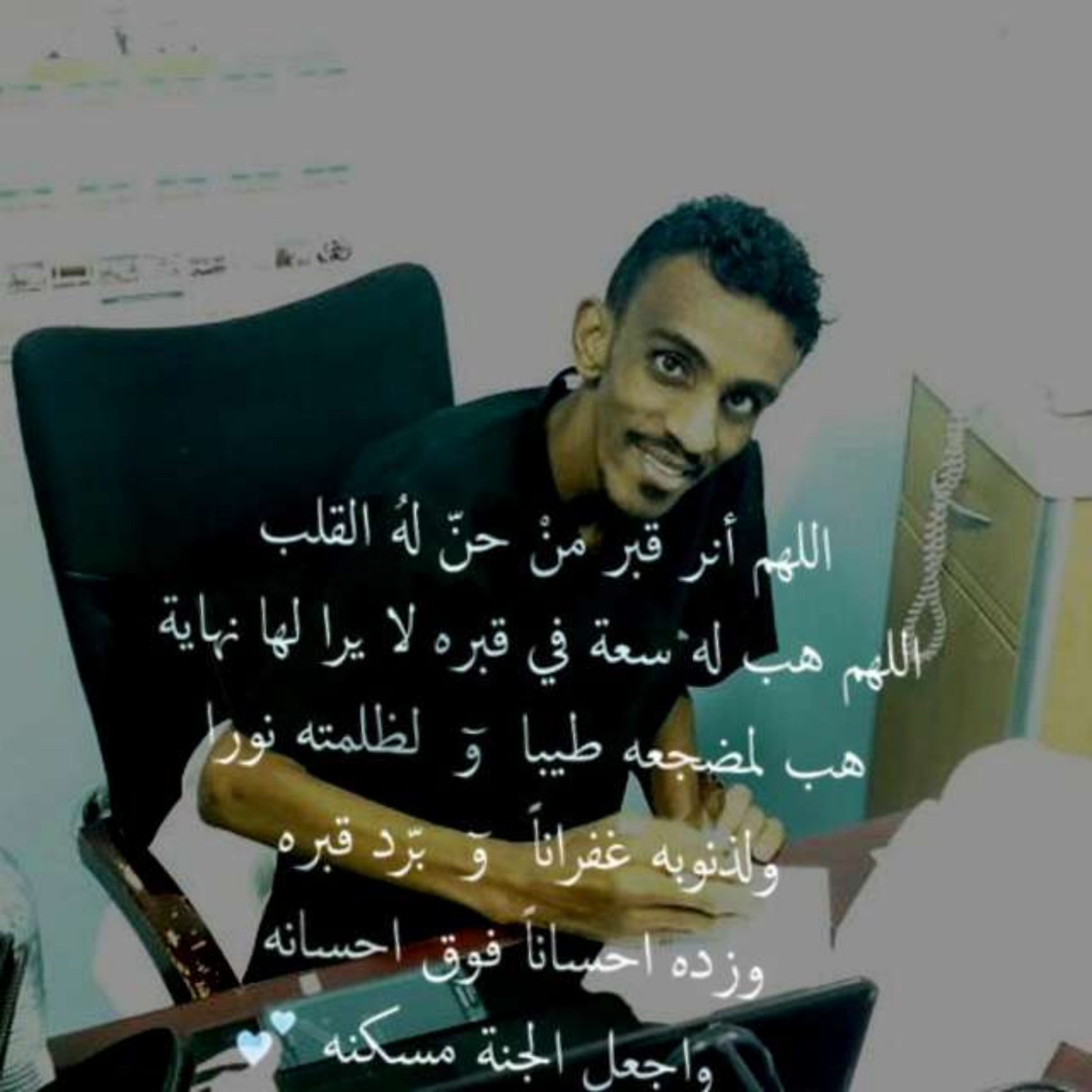
اللهم أنر قبر منْ حنّ لهُ القلب
اللهم هب له سعة في قبره لا يرا لها نهاية
هب لمضجعه طيبا وَ لظلمته نورا
ولذنوبه غفراناً وَ برّد قبره
وزده احساناً فوق احسانه
واجعل الجنة مسكنه

A 45-year-old man is referred with reduced energy levels, difficulty sleeping and low mood, symptoms he has been experiencing for several months. His wife divorced him last year on grounds of unreasonable behaviour, when he became withdrawn and refused to do anything around the house after losing his job. On further questioning he also admits to hearing voices telling him that he is useless.

What is the most likely diagnosis?

A	Depression
B	Personality disorder
C	Manic depression
D	Schizophrenia
E	Phobic anxiety

70731

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Previous Question | Skip Question

Calculator

Normal Values

A 45-year-old man is referred with reduced energy levels, difficulty sleeping and low mood, symptoms he has been experiencing for several months. His wife divorced him last year on grounds of unreasonable behaviour, when he became withdrawn and refused to do anything around the house after losing his job. On further questioning he also admits to hearing voices telling him that he is useless.

What is the most likely diagnosis?

A	Depression
B	Personality disorder
C	Manic depression
D	Schizophrenia
E	Phobic anxiety

Explanation

A	Depression

This patient suffers key symptoms of depression such as persistent low energy levels, and low mood (for greater than at least two weeks) as described by the ICD-10. He also suffers associated symptoms of sleep disturbance. He has psychotic elements to his illness as evidenced by auditory hallucinations in the second person, which can occur in affective disorders. The constellation of these symptoms makes depression the most likely answer.

B	Personality disorder

A personality disorder is defined by the ICD-10 as a condition of 'deeply ingrained and enduring behaviour patterns, manifesting as inflexible responses to a broad range of personal and social situations'. As this patient's symptoms are consistent with depression and he has no history of any prior behavioural disturbance, the diagnosis of personality disorder is not likely.

C	Manic depression

The patient does have symptoms consistent with depression; however, with no prior history of mania or hypomania, a diagnosis of bipolar affective disorder is not warranted.

D	Schizophrenia

The patient does suffer from auditory hallucinations; however, these can occur in depressive disorders and, alongside his other symptoms, depression is the most likely diagnosis. The ICD-10 in their diagnostic criteria for schizophrenia advise that auditory hallucinations more likely to be suggestive of schizophrenia include: third-person hallucinations, running commentaries, voices discussing the patient between themselves or voices coming from some part of the body.

E	Phobic anxiety

The patient expresses no specific phobia or anxiety symptoms, making this diagnosis incorrect.

70731

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Difficulty: Easy

Peer Responses %

Session Progress

Responses Correct:	0
Responses Incorrect:	1
Responses Total:	1
Responses - % Correct:	0%

A 30-year-old male attends the outpatient clinic. He has an obsession with washing his hands and spends up to one hour doing this each morning and evening. He says he feels that he is dirty. He is also concerned about security and checks the doors at home a number of times before leaving the house. On examination he is of low mood. He is slowed up in speech but coherent.

Which of the follow diagnoses fit best with this clinical picture?

A	Acute schizophrenia
B	Major depressive illness
C	Obsessive–compulsive disorder
D	Bipolar affective disorder
E	Anxiety neurosis

70732

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Previous Question | Skip Question

Calculator

Normal Values

A 30-year-old male attends the outpatient clinic. He has an obsession with washing his hands and spends up to one hour doing this each morning and evening. He says he feels that he is dirty. He is also concerned about security and checks the doors at home a number of times before leaving the house. On examination he is of low mood. He is slowed up in speech but coherent.

Which of the follow diagnoses fit best with this clinical picture?

A	Acute schizophrenia
B	Major depressive illness
C	Obsessive-compulsive disorder
D	Bipolar affective disorder
E	Anxiety neurosis

Explanation

C	Obsessive-compulsive disorder

Given this clinical picture of repetitive behaviour that is intrusive and consumes a significant amount of time during the day, OCD appears to be the most likely diagnosis. Associated depression is quite possible and is related to inability to overcome the repetitive cycles of behaviour. The incidence of OCD may be as high as 1-2% of the adult population and the condition occurs with roughly equal sex incidence. Cognitive therapy or selective serotonin reuptake inhibitors are effective treatments.

A	Acute schizophrenia

This patient is coherent, and does not present with classical thought disorder, auditory hallucination or delusions associated with acute schizophrenia. His obsessive symptoms are much more in keeping with a diagnosis of OCD.

B	Major depressive illness

The patient does have slowed speech and appears low in mood, making it likely he is suffering from an element of concomitant depression; however, his obsessive symptoms best fit the clinical picture of OCD.

D	Bipolar affective disorder

This patient has no historical or current symptoms of mania or hypomania, and therefore a diagnosis of bipolar affective disorder is not warranted.

E	Anxiety neurosis

Symptoms of anxiety, such as tension, worry and feelings of apprehension, are not described in this vignette, and his obsessive symptoms are much more in keeping with a diagnosis of OCD.

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Difficulty: Easy

Peer Responses %

Session Progress

Responses Correct:	0
Responses Incorrect:	2
Responses Total:	2
Responses - % Correct:	0%

A 72-year-old man had been started on a selective serotonin reuptake inhibitor (SSRI) by his GP after presenting with symptoms of depression. He had responded well to treatment, but three months later returns to see you. He is worried about things he has read in the newspaper saying that this medication could be harmful - in particular that it may cause suicidal thoughts.

What should you do about his current antidepressant medication?

A	Reassure and continue current treatment
B	Reduce dose by 50%
C	Refer to psychiatrist
D	Change to tricyclic antidepressant
E	Stop antidepressant treatment

70733

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Previous Question | Skip Question

Calculator

Normal Values

A 72-year-old man had been started on a selective serotonin reuptake inhibitor (SSRI) by his GP after presenting with symptoms of depression. He had responded well to treatment, but three months later returns to see you. He is worried about things he has read in the newspaper saying that this medication could be harmful - in particular that it may cause suicidal thoughts.

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E	Stop antidepressant treatment

Explanation

A	Reassure and continue current treatment

SSRI is a first-line treatment for depression and is an appropriate agent to use in this patient. The fact that he is responding well further supports your decision to use this treatment. There are some case reports linking increased suicidal thoughts, though not suicidal acts, to SSRIs in teenagers and young adults, and this has been occasionally misreported or sensationalised in the media. There is no clear evidence of this in adults over 18 years of age. In this case, it is best to reassure the patient and continue his SSRI treatment to which he is responding (see weblink below).

SSRIs are suitable for the vast majority of patients with depression. In a small number of cases it has been suggested that the may be linked to psychomotor agitation in the initial few days after commencing treatment. In addition, some patients may experience a return of symptoms after treatment withdrawal, so that abrupt cessation of treatment is not recommended. Significantly, patients who discontinue treatment after 3 months are at significantly higher risk of relapse. Tricyclic antidepressants would be associated with significantly more side effects, particularly in this age group.

B	Reduce dose by 50%

This patient is responding well to treatment and doesn't complain of any side effects. There is no indication to change his dose at this point. Gradual tapering of an SSRI is usually indicated when preparing to discontinue the drug, or when switching to another antidepressant medication.

C	Refer to psychiatrist

The patient has a simple query that can be managed in primary care. Minor to moderate to depression can by managed in the community by a general practitioner with a combination of pharmacological and psychological treatments. Reasons to refer would be if the diagnosis is unclear, failing to respond to treatment or rapid worsening of symptoms.

D	Change to tricyclic antidepressant

The patient is responding to his SSRI treatment, and therefore a switch to a tricyclic antidepressant (TCA) is not indicated. Even if the patient was failing to respond to an SSRI in terms of his depressive symptoms, an alternative SSRI would be the most likely second agent to switch to rather than a TCA treatment, which generally has more side effects (especially in an older person).

E	Stop antidepressant treatment

Abrupt cessation of an SSRI can lead to discontinuation symptoms, and therefore this answer is incorrect. Discontinuation symptoms can occur 24–72 h after the SSRI has been stopped and last usually 1–2 weeks. Symptoms may include nausea, dizziness, headache, lethargy, paraesthesia, anxiety, nightmares, insomnia and sweating.

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Difficulty: Average

Peer Responses %

Session Progress

Responses Correct:	0
Responses Incorrect:	3
Responses Total:	3
Responses - % Correct:	0%

External Links

Antidepressants
rcpsych.ac.uk/healthadvice/treatmentswellbeing/antidepressants.aspx

A 35-year-old woman had been started on fluoxetine 2 months ago by her GP for depression. She returned complaining of ongoing depressive symptoms. Her fluoxetine was stopped and she was started moclobemide 1 week later.

One day later she presented with collapse; on examination you find generalised increased tone, hyper-reflexia and neck stiffness: Her observations are: RR22, BP 170/100, HR 105, Sats 100% A, temp. 38.0C, GCS 14/15 (confused speech), and investigations show:

CK	785 U/l (24–170)
Urea	15.4 mmol/l
Creatinine	153 mol/l

Other bloods are remarkable.

What is the most likely cause of her recent symptoms?

A	Neuroleptic malignant syndrome
B	Serotonin syndrome
C	Urinary tract infection
D	Rhabdomyolysis
E	Selective serotonin reuptake inhibitor (SSRI) withdrawal

70734

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Previous Question Skip Question

Calculator

Normal Values

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D	Rhabdomyolysis
E	Selective serotonin reuptake inhibitor (SSRI) withdrawal

Explanation

B Serotonin syndrome

Serotonin syndrome is characterised by agitation, hyperthermia, tachycardia, labile blood pressure, hyper-reflexia and increased tone. It may be caused by any of the drug classes that result in increased serotonin, e.g. SSRIs or monoamine oxidase inhibitors (MAOIs) such as moclobemide. Removal of the causative agent and supportive therapy are the mainstays of treatment. Some case reports suggest that non-specific serotonin antagonists such as chlorpromazine may be helpful in some cases. Symptoms usually resolve over a period of 24–36 h.

A Neuroleptic malignant syndrome

Neuroleptic malignant syndrome (NMS) can occur in patients taking neuroleptic medications, usually agents which block dopamine. It is defined by a tetrad of fever, rigidity, mental status change and autonomic instability. It can be difficult to didtinguish from serotonin syndrome. Clues here are that (1) NMS usually occurs days to weeks after exposure, whereas serotonin syndrome usually occurs after 24 h of exposure to drugs that cause increased serotoninergic activity in the central nervous system (such as SSRI)l (2) CK in NMS is usually >1000 U/l; and (3) hyper-reflexia is not often seen in NMS, making the diagnosis of serotonin syndrome more likely.

C Urinary tract infection

There is no history of urinary symptoms, making this diagnosis unlikely. The recent medication changes and this lady's constellation of symptoms make serotonin syndrome more likely.

D Rhabdomyolysis

Patients with rhabdomyolsis usually present with a CK at least five times the upper limit of normal. In serotonin syndrome there may be an element of muscle necrosis associated with muscle rigidity, which is why there is a slight rise in the CK level. This lady's recent medication changes and constellation of symptoms make serotonin syndrome the correct diagnosis. Rhabdomyolsis may occur as a complication of severe serotonin syndrome and neuroleptic malignant syndrome.

E Selective serotonin reuptake inhibitor (SSRI) withdrawal

This patient's symptoms are not in keeping with SSRI withdrawal, and the fact that she is taking a medication that increases serotonergic activity makes this answer incorrect.

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Difficulty: Average

Peer Responses %

Session Progress

Responses Correct:	0
Responses Incorrect:	4
Responses Total:	4
Responses - % Correct:	0%

You are called to the geriatric psychiatry ward to assess a new inpatient. A 66-year-old man was admitted yesterday for elective investigation of cognitive dysfunction. His wife describes a background of worsening memory problems and poor mobility. The pattern is one of 'good days' with minimal symptoms, followed by periods of sudden deterioration. In the weeks prior to admission he has suffered frequent falls. He has no psychiatric history, although he has recently complained of fleeting visual hallucinations. He had no regular medication prior to admission.

On the night of his admission he became acutely distressed, complaining of 'seeing monsters' in his peripheral vision. His agitation was such that he required emergency sedation.

On examination he is drowsy and unable to give a coherent history. Tone is increased in all four limbs, although power seems normal. He has symmetrical upper limb rigidity and bradykinesia. His wife claims the involuntary movements are new.

What is the most appropriate management for the underlying neurological condition that has precipitated his admission to hospital?

A	Selective serotonin reuptake inhibitor
B	Acetylcholinesterase inhibitors
C	Aspirin and statins
D	Copper-chelating agents
E	Dopamine agonists

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Calculator

Normal Values

You are called to the geriatric psychiatry ward to assess a new inpatient. A 66-year-old man was admitted yesterday for elective investigation of cognitive dysfunction. His wife describes a background of worsening memory problems and poor mobility. The pattern is one of 'good days' with minimal symptoms, followed by periods of sudden deterioration. In the weeks prior to admission he has suffered frequent falls. He has no psychiatric history, although he has recently complained of fleeting visual hallucinations. He had no regular medication prior to admission.

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B	Acetylcholinesterase inhibitors
C	Aspirin and statins
D	Copper-chelating agents
E	Dopamine agonists

Explanation

B Acetylcholinesterase inhibitors

This patient's underlying diagnosis is very suggestive of dementia with Lewy bodies (DLB). This is a neurodegenerative disease caused by deposition of Lewy bodies (abnormal protein aggregates) in the cerebral cortex and brain stem. The consortium on DLB international workshop diagnostic criteria suggests the diagnosis is likely if, in the context of dementia, there are also present two of the three following core features: fluctuating attention and concentration, recurrent well-formed visual hallucinations and spontaneous parkinsonian motor signs. Further suggestive features include rapid eye movement (REM) sleep behaviour disorder, and a severe sensitivity to the extra-pyramidal side effects of neuroleptics. There is some evidence in the form of a small number of randomised controlled trials and open label studies to suggest that acetyl cholinesterase inhibitors, such as rivastigmine, may reduce hallucinations, fluctuations and parkinsonian symptoms and improve attention.

A Selective serotonin reuptake inhibitor

Selective serotonin reuptake inhibitors are a class of antidepressant drugs that are typically used to treat depression and anxiety. This patient's presentation is not in keeping with either of these diagnoses, and therefore this would not be the most appropriate agent to use in his management.

C Aspirin and statins

This combination would be appropriate for a patient suffering from vascular dementia, a dementing illness caused by series of repeated cerebral infarctions, usually in the context of risk factors such as hypertension. The disease manifests in a step-wise manner, and so periods of stability between deterioration can appear as the fluctuant stage of DLB. Neurological symptoms may also occur in vascular dementia, making these conditions difficult to differentiate. However, the patient's tetrad symptoms of dementia, fluctuant course, parkinsonism and visual hallucination point more towards a diagnosis of DLB.

D Copper-chelating agents

Wilson's disease, which is treated with copper-chelating agents, is a genetic disorder of copper metabolism that results in copper accumulation in body tissues, particularly the liver, brain, eyes and kidneys, and can present with neuro-psychiatric symptoms, including parkinsonism symptoms. However, it will usually also present with symptoms of liver disease and the classical Kayser-Fleischer rings on eye exam. The disease is most commonly diagnosed between the ages of 5 and 35 years.

E Dopamine agonists

Acetylcholinesterase inhibitors can be seen as a first-line treatment in DLB as they can have an improvement on neuropsychiatric and motor symptoms. Dopamine agonists such as ropinirole and rotigotine are used in the treatment of Parkinson's disease. For the severe parkinsonian symptoms of DLB, dopamine agonists have been used but they have been associated with worsening psychotic and behavioural symptoms. For this reason, small doses of levodopa are generally the preferred treatment for motor symptoms, as this agent has a lower side effect profile.

A 72-year-old woman visits the clinic feeling low. She has been feeling down for some time, and believes the problem has been confounded by an overactive bladder, previously assessed by the urology team, meaning that she is up and down to the toilet about 10 times a day. On further questioning she admits that she is apprehensive most of the day, and cannot relax She she lives alone, her husband died five years ago and the only company she has is her cat. She has lost 5 kg in weight over the past year and wakes up at around 4.30-5.00 in the morning. Clinical examination is unremarkable.

Given the likely diagnosis, which of the following represents the most appropriate therapy for this woman?

A	Oxybutynin
B	Sertraline
C	Dothiepin
D	Tolterodine
E	Amitriptyline

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Calculator

Normal Values

A 72-year-old woman visits the clinic feeling low. She has been feeling down for some time, and believes the problem has been confounded by an overactive bladder, previously assessed by the urology team, meaning that she is up and down to the toilet about 10 times a day. On further questioning she admits that she is apprehensive most of the day, and cannot relax She she lives alone, her husband died five years ago and the only company she has is her cat. She has lost 5 kg in weight over the past year and wakes up at around 4.30-5.00 in the morning. Clinical examination is unremarkable.

Given the likely diagnosis, which of the following represents the most appropriate therapy for this woman?

A	Oxybutynin
B	Sertraline
C	Dothiepin
D	Tolterodine
E	Amitriptyline

Explanation

B Sertraline

This lady is complaining of low mood and anxiety symptoms. She has somatic symptoms of depression including weight loss and early morning wakening, as well as symptoms of anxiety such as apprehension and an inability to relax. The most appropriate treatment for these symptoms would be a selective serotonin reuptake inhibitor (SSRI) in the first instance. Possible second-line agents to treat her symptoms would include the tricyclic antidepressants (TCAs) dothiepin and amitriptyline; however, bear in mind their anticholinergic side-effect profile could worsen her urinary symptoms by causing retention or obfuscating future urinary investigation.

A Oxybutynin

Oxybutynin is an anticholinergic medication that can be used to treat symptoms of urinary frequency or urgency. This medication may help the patient's urinary symptoms, but it will not treat any symptoms of low mood and anxiety - the reasons why this lady attended clinic initially.

C Dothiepin

In accordance with NICE guidelines, TCAs are not the first-line treatment of anxiety or depressive symptoms. They are an effective treatment for these symptoms, but their higher toxicity profile makes an SSRI a more appropriate agent to use as a primary treatment choice. Additionally, TCAs may further disturb the patient's urinary symptoms.

D Tolterodine

Tolterodine is an antimuscarinic agent that can be used as a treatment for detrusor overactivity. It could potentially be used to treat this patient's symptoms of urinary frequency, but would not treat her symptoms of low mood and anxiety for which she had initially attended the clinic.

E Amitriptyline

In accordance with NICE guidelines, TCAs are not the first-line treatment for anxiety or depressive symptoms. They are an effective treatment for these symptoms but their higher toxicity profile makes an SSRI a more appropriate agent to use as a primary treatment choice. Additionally, TCAs may further disturb the patient's urinary symptoms.

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Difficulty: Average

Peer Responses %

Session Progress

Responses Correct:	0
Responses Incorrect:	6
Responses Total:	6
Responses - % Correct:	0%

A 62-year-old man, with a past medical history of hypertension, comes to the Emergency Department with his daughter, who is very concerned that he may be depressed. He wakes very early in the morning, has been complaining of low mood and energy levels and seems not to have been eating for the past few weeks. Apparently he has undergone some minor investigations for indigestion, which have proved unremarkable apart from some minor gastro-oesophageal reflux disease for which his GP has prescribed low-dose PPI. On review you become quite concerned because he tells you the reason he is depressed is that he thinks he is dying from stomach cancer and he has considered taking a paracetamol overdose (over the past 2 days), but has been dissuaded from doing this by his daughter.

Investigations:

Hb	12.1 g/dl
WCC	4.9 $x10^9$/l
PLT	175 $x10^9$/l
Na^+	141 mmol/l
K^+	4.2 mmol/l
Creatinine	100 µmol/l

Which of the following would be the most appropriate therapy choice for him?

A	Psychoanalysis
B	Amitriptyline
C	Electroconvulsive therapy
D	Citalopram
E	Venlafaxine

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Calculator

Normal Values

A 62-year-old man, with a past medical history of hypertension, comes to the Emergency Department with his daughter, who is very concerned that he may be depressed. He wakes very early in the morning, has been complaining of low mood and energy levels and seems not to have been eating for the past few weeks. Apparently he has undergone some minor investigations for indigestion, which have proved unremarkable apart from some minor gastro-oesophageal reflux disease for which his GP has prescribed low-dose PPI. On review you become quite concerned because he tells you the reason he is depressed is that he thinks he is dying from stomach cancer and he has considered taking a paracetamol overdose (over the past 2 days), but has been dissuaded from doing this by his daughter.

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Which of the following would be the most appropriate therapy choice for him?

A Psychoanalysis

B Amitriptyline

C Electroconvulsive therapy

D Citalopram

E Venlafaxine

Explanation

D Citalopram

This patient is suffering from moderate to severe depression, as evidenced by his symptoms of low mood, low energy, anorexia, early morning wakening and suicidal ideation. ICD-10 lists 10 main symptoms of depression, with the three core symptoms being (1) persistent sadness or low mood, (2) loss of interests or pleasure and (3) fatigue or low energy; and the others being (4) disturbed sleep, (5) poor concentration, (6) low self-confidence, (7) poor appetite, (8) suicidal thoughts, (9) psychomotor agitation or retardation and (10) guilt or self-blame. Moderate depression is described as five or more symptoms, and severe as seven or more. This patient is also suffering a negative delusion regarding a diagnosis of cancer. The first-line pharmaceutical treatment for this illness would be citalopram, an SSRI, as per NICE guidelines.

A Psychoanalysis

This patient is suffering from moderate to severe depression. Psychological interventions are recommended as part of illness management, but cognitive behavioural therapy or interpersonal therapy is the mainstay of psychological treatment, rather than psychoanalysis.

B Amitriptyline

NICE guidelines recommend a selective serotonin reuptake inhibitor (SSRI) as a first-line treatment in moderate to severe depression, making this answer, amitriptyline, a TCA (tricyclic antidepressant) incorrect. TCAs have a higher toxicity profile and are potentially more harmful than SSRIs in an overdose scenario. They are also more likely to interact with medications that an older patient may be taking concurrently.

C Electroconvulsive therapy

The first-line treatment of moderate to severe depression is an SSRI. Electroconvulsive therapy (ECT) is used in the UK for the rapid treatment of severe depression when it is life threatening or when it has failed to respond to other treatments. It is also used to treat resistant mania and catatonia.

E Venlafaxine

Venlafaxine is a serotonin-norepinephrine reuptake inhibitor (SNRI) used in the treatment of depression. SSRIs remain the first-line treatment of depression in accordance with Nice Guidelines. Venlafaxine is listed as a drug to be used with caution in those suffering from hypertension, another reason why it might not be an appropriate treatment option for this patient.

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Difficulty: Average

Peer Responses %

Session Progress

Responses Correct:	0
Responses Incorrect:	7
Responses Total:	7
Responses - % Correct:	0%

An 18-year-old girl is admitted to the Emergency Department after slashing at her arms with a kitchen knife. She has had episodes of paracetamol overdose in the past, and says that this time was because of a row with her boyfriend. Currently she finds it difficult to hold down a job and has been in trouble with the police for alcohol abuse. She lives alone, having moved out of the family home due to domestic violence. On examination there are multiple, healed scars due to previous wrist and arm slashing. She is abusive and tearful but is otherwise normal.

Which of the following is the most likely diagnosis?

A	Depression
B	Schizophrenia
C	Borderline personality disorder
D	Bipolar disease
E	Post-traumatic stress disorder

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Calculator

Normal Values

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An 18-year-old girl is admitted to the Emergency Department after slashing at her arms with a kitchen knife. She has had episodes of paracetamol overdose in the past, and says that this time was because of a row with her boyfriend. Currently she finds it difficult to hold down a job and has been in trouble with the police for alcohol abuse. She lives alone, having moved out of the family home due to domestic violence. On examination there are multiple, healed scars due to previous wrist and arm slashing. She is abusive and tearful but is otherwise normal.

Which of the following is the most likely diagnosis?

A	Depression
B	Schizophrenia
C	Borderline personality disorder
D	Bipolar disease
E	Post-traumatic stress disorder

Explanation

C	Borderline personality disorder

Borderline or emotionally unstable personality disorder is a disorder characterised by an unpredictable and capricious mood, emotional outbursts and impulsivity. There is usually instability of interpersonal relationships, intense fear of abandonment, self-harm and suicidal gesture. The patient's behaviour is in keeping with a diagnosis of borderline personality disorder. Treatment usually involves risk assessment and psychological and behavioural interventions.

A	Depression

Although this patient appears tearful and has evidence of self-harm, there are no other symptoms to suggest a depressive illness, and in fact, her social, forensic and relationship histories are more suggestive of an enduring disorder of the personality.

B	Schizophrenia

There is no history here of hallucination, delusion or thought disorder that would suggest a diagnosis of schizophrenia.

D	Bipolar disease

There is no history here of previous depressive or manic symptoms, which may include increased talkativeness, grandiosity, psychomotor acceleration or distractibility, and so a diagnosis of bipolar disease is not warranted.

E	Post-traumatic stress disorder

There is no suggestion in the vignette of a stressor that has caused the patient distress of a pervasive nature, and no history of the patient 'reliving' the stressor (i.e. via dreams, flashbacks). The predominant symptoms of interpersonal difficulty, self-harm and emotional outbursts point more towards a diagnosis of borderline personality disorder.

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Session Progress

Responses Correct:	0
Responses Incorrect:	8
Responses Total:	8
Responses - % Correct:	0%

A 54-year-old woman with long-standing schizophrenia is admitted to the Emergency Department with pyrexia and decreased conscious level. Her home help reports that she has been increasingly thirsty over the past few weeks and seems to be drinking increasingly large amounts of tea, and is requesting a number of bottles of Coke as part of the weekly shop. She has struggled with her weight for many years, and has a history of hypertension for which she takes ramipril. On examination her GCS is 11. Her BP is 124/80 mmHg and her pulse is 100/min.

Investigations:

Hb	13.2 g/dl
WCC	11.1 x10^9/l
PLT	247 x10^9/l
Na^+	146 mmol/l
K^+	5.9 mmol/l
Creatinine	230 mol/l
Bicarbonate	23 mmol/l
Glucose	41.2 mmol/l

Which of the following medications is most likely to have contributed to her presentation?

A	Flupenthixol
B	Haloperidol
C	Risperidone
D	Fluoxetine
E	Clozapine

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Calculator

Normal Values

A 54-year-old woman with long-standing schizophrenia is admitted to the Emergency Department with pyrexia and decreased conscious level. Her home help reports that she has been increasingly thirsty over the past few weeks and seems to be drinking increasingly large amounts of tea, and is requesting a number of bottles of Coke as part of the weekly shop. She has struggled with her weight for many years, and has a history of hypertension for which she takes ramipril. On examination her GCS is 11. Her BP is 124/80 mmHg and her pulse is 100/min.

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PLT	247 $x10^9$/l
Na^+	146 mmol/l
K^+	5.9 mmol/l
Creatinine	230 mol/l
Bicarbonate	23 mmol/l
Glucose	41.2 mmol/l

Which of the following medications is most likely to have contributed to her presentation?

A Flupenthixol

B Haloperidol

C Risperidone

D Fluoxetine

E Clozapine

Explanation

E Clozapine

Atypical antipsychotics are associated with a risk of developing type 2 diabetes. A study by Nielsen et al. (see below) found that type 2 diabetes occurred most commonly with clozapine (odds ratio (OR) 2.37) and olanzapine (OR 1.57). It is thought that olanzapine and clozapine lead to increased weight gain and insulin resistance, and this may accelerate the development of impaired glucose tolerance and diabetes. Antagonism at the 5-HT2C and H1 receptors seems to be involved in antipsychotic-induced weight gain. Among the antipsychotics, clozapine and olanzapine, which have the highest weight gain/obesity risk, also have the highest affinities for 5-HT2C and H1 receptors.

A Flupenthixol

This lady has hyperglycaemia and polydipsia, suggesting the development of diabetes. Flupenthixol is a typical antipsychotic whose main side effects include extrapyramidal and anti-muscarinic symptoms. It may cause hyperglycaemia and the development of diabetes, but nowhere near at the same frequency as clozapine and other atypical antipsychotics.

B Haloperidol

Haloperidol is a typical antipsychotic whose main side effects include extrapyramidal and anti-muscarinic symptoms. It may cause hyperglycaemia and the development of diabetes, but nowhere near at the same frequency as clozapine and other atypical antipsychotics.

C Risperidone

The use of atypical antipsychotics is associated with the development of diabetes. However, risperidone is seen as one of these drugs with a lower risk of causing diabetes.

D Fluoxetine

Fluoxetine is a selective serotonin reuptake inhibitor (SSRI) and is not associated with significant risk of developing diabetes.

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Session Progress

Responses Correct:	0
Responses Incorrect:	9
Responses Total:	9
Responses - % Correct:	0%

A 56-year-old woman with chronic back pain is reviewed at the pain clinic. The doctor who reviews her is concerned that there may be an element of depression that is worsening her symptoms, and decides to prescribe citalopram. She returns, however, to the Emergency Department the following day feeling agitated and unwell. On examination she has globally increased rigidity and tremor. She is confused and agitated when questioned about her symptoms. Her temperature is elevated at 37.8°C, her BP is 155/92 mmHg, with a RR of 25 and a pulse of 100/min.

Investigations:

Hb	13.2 g/dl
WCC	6.9 $x10^9$/l
PLT	190 $x10^9$/l
Na^+	141 mmol/l
K^+	5.1 mmol/l
Creatinine	130 µ mol/l
Urea	13.2 mmol/l

Which of the following is the most likely diagnosis?

A	Tardive dyskinesia
B	Serotonin syndrome
C	Tramadol toxicity
D	Attention seeking behaviour
E	Encephalitis

70740

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Calculator

Normal Values

A 56-year-old woman with chronic back pain is reviewed at the pain clinic. The doctor who reviews her is concerned that there may be an element of depression that is worsening her symptoms, and decides to prescribe citalopram. She returns, however, to the Emergency Department the following day feeling agitated and unwell. On examination she has globally increased rigidity and tremor. She is confused and agitated when questioned about her symptoms. Her temperature is elevated at 37.8°C, her BP is 155/92 mmHg, with a RR of 25 and a pulse of 100/min.

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B	Serotonin syndrome
C	Tramadol toxicity
D	Attention seeking behaviour
E	Encephalitis

Explanation

B Serotonin syndrome

Serotonin syndrome is characterised by agitation, hyperthermia, tachycardia, labile blood pressure, hyper-reflexia and increased tone. It may be caused by any of the drug classes that result in increased serotonin, e.g. selective serotonin reuptake inhibitors (SSRIs) or monoamine oxidase inhibitors, and symptoms usually occur in close proximity to initiation of one of these drugs. Removal of the causative agent and supportive therapy, which may include administration of benzodiazepines, are the mainstay of treatment. Some case reports suggest that non-specific serotonin antagonists such as chlorpromazine may be helpful in some cases. Symptoms usually resolve over a period of 24–36 h.

A Tardive dyskinesia

Tardive dyskinesia describes the rapid, involuntary facial movements, and sometimes limb movements, associated with typical antipsychotics, and to a lesser extent the atypical antipsychotics and the anti-emetic, metoclopramide. It does not usually present with an acute destabilisation of the patient's vital signs as in this vignette.

C Tramadol toxicity

This lady may have accidentally overdosed on an opiate medication such as tramadol for her back pains, but symptoms of opiate toxicity - including reduced respiratory rate and constricted pupils - are not described. Opiate overdose can cause agitation and euphoria, but usually results in reduced mentation and drowsiness. Opiate toxicity may be associated with a small drop in blood pressure rather than hypertension, and is not associated with pyrexia.

D Attention seeking behaviour

This patient is confused with unstable observations, deranged renal function and recent initiation of a new medication, making this diagnosis incorrect.

E Encephalitis

Encephalitis can present with altered mental state and pyrexia, and there may also be focal neurological signs such as seizure activity. The clue in this vignette is the proximity of her SSRI treatment to the development of her symptoms, making the diagnosis of serotonin syndrome more likely.

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Session Progress

Responses Correct:	0
Responses Incorrect:	10
Responses Total:	10
Responses - % Correct:	0%

A 53-year-old man with long-standing schizophrenia is referred by his GP after 3 fasting blood glucoses of 11.2 mmol/l, 17.3 mmol/l, and 9.2 mmol/l during the same month. He is taking a number of anti-psychotic and anti-depressive medications. On examination his BP is 142/74 mmHg, his BMI is 32. Other physical examination is unremarkable.

Investigations:

Hb	12.9 g/dl
WCC	5.9 $x10^9$/l
PLT	190 $x10^9$/l
Na^+	140 mmol/l
K^+	4.7 mmol/l
Creatinine	110 μmol/l
Glucose	9.2 mmol/l

Which of the following medications should be avoided in the management of his condition as it may worsen his glucose tolerance?

A	Citalopram
B	Risperidone
C	Olanzapine
D	Amytriptline
E	Fluoxetine

70741

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Calculator

Normal Values

A 53-year-old man with long-standing schizophrenia is referred by his GP after 3 fasting blood glucoses of 11.2 mmol/l, 17.3 mmol/l, and 9.2 mmol/l during the same month. He is taking a number of anti-psychotic and anti-depressive medications. On examination his BP is 142/74 mmHg, his BMI is 32. Other physical examination is unremarkable.

Investigations:

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A	Citalopram
B	Risperidone
C	Olanzapine
D	Amytriptline
E	Fluoxetine

Explanation

Olanzapine as an atypical anti-psychotic which has been shown in studies to be associated with increasing risk of developing Type 2 diabetes with increasing dose, this is related to weight gain, insulin resistance, and subsequent impaired glucose tolerance. A very large HMO study suggested that risperidone is not associated with development of Type 2 diabetes (OR 0.88), versus clozapine (OR 7.44), olanazapine (OR 3.10), and conventional anti-psychotics, (OR 2-3). If possible, high dose conventional agents or olanapine should therefore be avoided in this patient. Given his fasting glucose level, he should be started on metformin at diagnosis, and encouraged to lose weight aggressively.

Differential effects of risperidone, olanzapine, clozapine, and conventional antipsychotics on type 2 diabetes: findings from a large health plan database.
Frank D Gianfrancesco, Amy L Grogg, Ramy A Mahmoud, Ruey-hua Wang, Henry A Nasrallah
J Clin Psychiatry 2002; 63(10):920-930

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Session Progress

Responses Correct:	0
Responses Incorrect:	11
Responses Total:	11
Responses - % Correct:	0%

A 57-year-old man is brought to the Emergency room by his wife. He tells you that he is already dead and is in hell, he doesn't exist in this world. His wife tells you that he barely eats, sleeps for long periods in the day and wakes in the early hours of the morning. She says he became pre-occupied and very low in mood after some problems at work. Most recently he had tried to jump out of the car whilst they were driving to the hospital. On examination he stares continuously at the floor, mumbling only that he's in hell, the devil is on him and he's already dead. He looks unkempt and as if he hasn't been taking good care of himself.

Investigations;

Hb	13.1 g/dl
WCC	4.5 $x10^9$/l
PLT	201 $x10^9$/l
Na^+	139 mmol/l
K^+	4.9 mmol/l
Creatinine	110 mol/l
TSH	3.9 U/l

Which of the following treatments is most likely to be effective in this case?

A	Amitriptyline
B	Fluoxetine
C	Citalopram
D	ECT
E	Haloperidol

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Calculator

Normal Values

A 57-year-old man is brought to the Emergency room by his wife. He tells you that he is already dead and is in hell, he doesn't exist in this world. His wife tells you that he barely eats, sleeps for long periods in the day and wakes in the early hours of the morning. She says he became pre-occupied and very low in mood after some problems at work. Most recently he had tried to jump out of the car whilst they were driving to the hospital. On examination he stares continuously at the floor, mumbling only that he's in hell, the devil is on him and he's already dead. He looks unkempt and as if he hasn't been taking good care of himself.

Investigations;

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Creatinine	110 mol/l
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Which of the following treatments is most likely to be effective in this case?

A	Amitriptyline
B	Fluoxetine
C	Citalopram
D	ECT
E	Haloperidol

Explanation

This man has delusional depression, with features consistent with Cotard's syndrome, where patients have a belief that they have actually died and no longer really exist. Symptoms consistent with severe depression include the early morning waking and daytime somnolence and his poor appetite. In delusional depression tricyclic antidepressants, SSRIs and major tranquilisers are less successful than ECT.

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Session Progress

Responses Correct:	0
Responses Incorrect:	12
Responses Total:	12
Responses - % Correct:	0%

A 32-year-old woman with a history of severe bipolar disorder treated with lithium is in the midst of an extended period of psychotic depression. She tells you that she has thought about suicide and had begun drafting a suicide note, but threw it away the preceding week, and that she was considering a number of methods and had researched them on the internet. She doesn't want to be admitted and tells you she will try to be compliant with drug therapy.

Which of the following is the least harmful regimen in the event of an overdose?

A	Continue lithium and add fluoxetine
B	Continue lithium and add sodium valproate
C	Continue lithium and add amitriptyline
D	Stop lithium and start sodium valproate
E	Stop lithium and start amitriptyline

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Calculator

Normal Values

A 32-year-old woman with a history of severe bipolar disorder treated with lithium is in the midst of an extended period of psychotic depression. She tells you that she has thought about suicide and had begun drafting a suicide note, but threw it away the preceding week, and that she was considering a number of methods and had researched them on the internet. She doesn't want to be admitted and tells you she will try to be compliant with drug therapy.

Which of the following is the least harmful regimen in the event of an overdose?

A	Continue lithium and add fluoxetine
B	Continue lithium and add sodium valproate
C	Continue lithium and add amitriptyline
D	Stop lithium and start sodium valproate
E	Stop lithium and start amitriptyline

Explanation

The answer to this question centres around her potential risk of suicide and if she may choose to use her lithium in the attempt. Effectively this rules out the three options including the plan to continue the lithium, although lithium and fluoxetine given together has been proved to be effective in refractory depression. Out of the alternatives, given possible tricyclic toxicity, D) where the sodium valproate is commenced would be the treatment of choice. Sodium valproate overdose is rarely fatal, with a case fatality rate of only around 0.2% in a US case series. With respect to alternatives, if she was non-compliant with drug therapy or her condition deteriorated further, she may be considered for ECT.

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Session Progress

Responses Correct:	0
Responses Incorrect:	13
Responses Total:	13
Responses - % Correct:	0%

An 18-year-old girl is transferred from the intensive psychiatric care unit. She was admitted with a four-week history of auditory hallucinations and paranoid ideation. At the time of admission she was verbally and physically aggressive, limiting any physical examination. She remained a difficult management issue all that day. On review the following day she was found to be pyrexial, with tachycardia and tachypnoea and was transferred to the medical unit for further investigation.
The patient is drowsy and no history is available. On examination, core temperature is 40°C, pulse 110/min regular, blood pressure labile. She has lead pipe rigidity in all four limbs. There is no meningism, no papilloedema and plantars are flexor.

Initial investigations reveal:

Urea	12 mmol/l
White cell count	15×10^9/l
Creatinine	155 mol/l
Platelets	700×10^9/l
Cerebrospinal fluid	Normal biochemistry, nil on Gram stain
Urine dipstick	Blood +++
Urinalysis	Nil
Chest radiograph	Clear lung fields

Blood cultures have been sent from the unit before her transfer.

What is the investigation most likely to contribute to making the diagnosis?

A	Electroencephalogram
B	Computerised tomography (CT) of the brain
C	Serum and urinary porphorinogens
D	Serum creatine kinase
E	Serum amylase

70744

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Previous Question | Skip Question

Calculator

Normal Values

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D	Serum creatine kinase
E	Serum amylase

Explanation

The sequence of events in this case is: first psychotic episode requiring emergency sedation, development of neuroleptic malignant syndrome and subsequent rhabdomyolysis.
Neuroleptic malignant syndrome is characterised by rigidity, hyperthermia, autonomic instability and altered Glasgow coma scale. It is most often associated with older neuroleptic agents, although it can be caused by any drug acting on the dopaminergic system.
Risk factors include young age, female sex, and high-dose escalation of neuroleptics. The diagnosis is clinical and investigations are used to screen for complications and rule out other pathology. Treatment is supportive with antipyretics, fluid resuscitation and autonomic monitoring. Bromocriptine is now thought to be of most value, (more than dantrolene) in severe cases.
The laboratory results given are typical of developing rhabdomyolysis. The positive dipstick and negative urine microscopy is suggestive of myoglobinuria. Measurement of creatine kinase (CK) will help confirm the diagnosis.

You assess a 74-year-old woman at the neurology clinic. She has been referred for assessment of memory loss. The patient is a difficult historian answering most questions with 'yes or no'. You manage to elicit a story of subacute onset memory difficulty. The patient describes herself as 'stupid'. She further volunteers symptoms of intermittent headache, abdominal pain and insomnia. There is a family history of ischaemic heart disease and her sister has recently died from a myocardial infarction. The referral letter describes gradual social withdrawal, such that the patient has been refusing to attend the general practitioner's surgery. Her doctor is also concerned about poor appetite and gradual weight loss. Physical examination including BP of 135/82 mmHg, and pulse of 75/min and regular is unremarkable. She does not comply with formal mental state testing.

What initial management is indicated?

A	Lithium with frequent blood-level monitoring
B	Aspirin, statin and antihypertensive
C	Carbamazepine
D	High-dose steroids
E	Citalopram

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Previous Question Skip Question

Calculator

Normal Values

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You assess a 74-year-old woman at the neurology clinic. She has been referred for assessment of memory loss. The patient is a difficult historian answering most questions with 'yes or no'. You manage to elicit a story of subacute onset memory difficulty. The patient describes herself as 'stupid'. She further volunteers symptoms of intermittent headache, abdominal pain and insomnia. There is a family history of ischaemic heart disease and her sister has recently died from a myocardial infarction. The referral letter describes gradual social withdrawal, such that the patient has been refusing to attend the general practitioner's surgery. Her doctor is also concerned about poor appetite and gradual weight loss. Physical examination including BP of 135/82 mmHg, and pulse of 75/min and regular is unremarkable. She does not comply with formal mental state testing.

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B	Aspirin, statin and antihypertensive
C	Carbamazepine
D	High-dose steroids
E	Citalopram

Explanation

The general practitioner was concerned about a neurodegenerative process. The clinical picture is more in keeping with a depressive 'pseudo-dementia'. Note the subjective complaint of memory loss, social withdrawal, insomnia and poor appetite. Depression is common in the elderly and can present with different symptoms compared with younger patient groups. Somatisation is common and often the patient will present with a variety of non-specific physical symptoms. Suicide is common in the depressed elderly and clinicians must have a high index of suspicion. There are a number of validated tools for measuring depression in the elderly. The Geriatric Depression Scale is often used in the UK. However, it has been shown that a simple question such as 'Are you depressed?' has a similar sensitivity for case detection. Exclusion of dementia with formal cognitive testing can be difficult. As shown in the above scenario, depressed patients may perform poorly for motivational reasons. In practice, if there is suspicion of depression, many clinicians will treat first and then reassess. There is no evidence of superiority of one antidepressant in the elderly. The selective serotonin-reuptake inhibitor citalopram is often used because of an acceptable side effect profile and lack of interactions with other drugs. Secondary causes of depression should be considered. Alcohol and sedative use would be the most common; in a woman with disturbed sleep and weight gain, thyroid dysfunction should also be excluded.

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Session Progress

Responses Correct:	0
Responses Incorrect:	15
Responses Total:	15
Responses - % Correct:	0%

A 39-year-old woman presents to the first seizure clinic. She is accompanied by her community psychiatric nurse. The nurse provides a witness account of the attacks. Each episode has occurred in the community day hospital. The patient would fall to the floor screaming. She would then thrash around both arms followed by legs. During the episodes she is unresponsive, holding her eyes tightly shut. Afterwards she is able to converse with staff in the centre. She has never injured herself but often complains of headache post-event. The patient claims to have no memory of events. Systems enquiry reveals no other symptoms. Past medical history includes schizophrenia, well controlled on depot chlorpromazine. She is a lifetime smoker with mild airways disease. Physical examination reveals tar staining of fingers only.

Initial investigations performed by the psychiatry team include:

Toxicology screen	negative
Interictal electroencephalogram (EEG)	formal report 'minor slowing of alpha waves, with increased voltage theta activity and diffuse fast activity'
Serum prolactin	22 ng/ml (2.1–18)

You reassure her that the seizures are unlikely to cause significant harm.

What other step would you take in further management?

A	Pregnancy testing
B	Magnetic resonance imaging (MRI) pituitary fossa
C	Dynamic pituitary function testing
D	Lumbar puncture
E	Commence sodium valproate

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Calculator

Normal Values

A 39-year-old woman presents to the first seizure clinic. She is accompanied by her community psychiatric nurse. The nurse provides a witness account of the attacks. Each episode has occurred in the community day hospital. The patient would fall to the floor screaming. She would then thrash around both arms followed by legs. During the episodes she is unresponsive, holding her eyes tightly shut. Afterwards she is able to converse with staff in the centre. She has never injured herself but often complains of headache post-event. The patient claims to have no memory of events. Systems enquiry reveals no other symptoms. Past medical history includes schizophrenia, well controlled on depot chlorpromazine. She is a lifetime smoker with mild airways disease. Physical examination reveals tar staining of fingers only.

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B	Magnetic resonance imaging (MRI) pituitary fossa
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D	Lumbar puncture
E	Commence sodium valproate

Explanation

The differentiation of true seizures from psychogenic non-epileptic seizures (NES) is challenging. It is usually detailed history from the patient and a witness, rather than laboratory testing that will give the diagnosis. However the gold standard investigation to confirm diagnosis is video-EEG recording of habitual events. In this scenario the story is highly suggestive of NESLE. Pointers to a 'non-organic' aetiology include rapid post-ictal recovery, bizarre limb movements and eye clenching, attacks in public places and lack of injury. Candidates should not be distracted by the interictal electroencephalogram (EEG) and prolactin results. The use of interictal EEG, especially in late onset epilepsy is limited by poor sensitivity. In this case abnormalities were detected. However, the alpha wave and theta activity changes as well as the fast activity are in keeping with typical antipsychotic use. The use of prolactin in diagnosis of NESLE is similarly imprecise. Prolactin levels can be raised following tonic clonic seizure; however, samples must be taken immediately after the event. Two common causes of a raised prolactin that may be relevant in this case include use of typical antipsychotics and pregnancy. With a minor rise in prolactin, in the absence of any symptoms or signs, detailed investigation for pituitary tumour is not warranted. A small prolactin rise is expected with chlorpromazine, and in the absence of symptoms would not warrant a change of medication.

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Difficulty: Average

Peer Responses %

Session Progress

Responses Correct:	0
Responses Incorrect:	16
Responses Total:	16
Responses - % Correct:	0%

A 23-year-old computer engineer presents to his GP with symptoms suggestive of a mixed anxiety–depression disorder. His GP prescribes fluoxetine 20 mg daily and alprazolam 0.25 mg per day. The following day, the patient presents to the emergency department accompanied by his mother. She explains that he has become unduly euphoric and hyperactive. On examination, he appeared confused and had frequent sudden brief jerking in various parts of his body. On further questioning about his drug history, he admitted to self-medication with St John's Wort as well as his prescribed medication.

Which of the following is the most likely diagnosis?

A	Serotonin syndrome
B	Myoclonic epilepsy
C	Neuroleptic malignant syndrome
D	Psychogenic non-epileptic seizures
E	Bipolar disorder

70747

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Calculator

Normal Values

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Which of the following is the most likely diagnosis?

A	Serotonin syndrome
B	Myoclonic epilepsy
C	Neuroleptic malignant syndrome
D	Psychogenic non-epileptic seizures
E	Bipolar disorder

Explanation

This patient has the serotonin syndrome, an uncommon but potentially fatal complication of selective serotonin re-uptake inhibitors (SSRIs) especially when combined with other serotonin-enhancing agents including tricyclic antidepressants, monoamine oxidase inhibitors and the herbal treatment St John's Wort (hypericum). It develops over hours with characteristic hypomania, drowsiness, myoclonus, hyperthermia and pronounced autonomic symptoms (the 'happy drunk' state). It may resemble the neuroleptic malignant syndrome. Hyperreflexia, not hyporeflexia, is typical. Conjunctival haemorrhage is not a typical feature. Support with IV fluid rehydration, and treatment of symptoms of anxiety with benzodiazepines are the therapies of choice.

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Session Progress

Responses Correct:	0
Responses Incorrect:	17
Responses Total:	17
Responses - % Correct:	0%

A 37-year-old man known to be in the early stages of Huntington's disease is admitted to the Emergency department by ambulance. His wife found him unconscious on the floor with an empty bottle of codeine phosphate at his side. He had left a suicide note and on further questioning his wife admits that her husband has been depressed for a few weeks. On examination his GCS is 7, with a respiratory rate of 10/min, BP of 100/60 mmHg.

Investigations;

pH	7.25
pO_2	6.8 kPa
pCO_2	7.5 kPa

Which of the following represents the most appropriate management in this case?

A	Ask his wife to decide if he is to be treated
B	Make a decision yourself that he has a terminal illness and should not be treated
C	Ask your senior to rule on whether resuscitation is appropriate
D	Treat with naloxone to reverse the effects of the codeine overdose
E	Take legal advice as to what you should do next

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Calculator

Normal Values

A 37-year-old man known to be in the early stages of Huntington's disease is admitted to the Emergency department by ambulance. His wife found him unconscious on the floor with an empty bottle of codeine phosphate at his side. He had left a suicide note and on further questioning his wife admits that her husband has been depressed for a few weeks. On examination his GCS is 7, with a respiratory rate of 10/min, BP of 100/60 mmHg.

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D	Treat with naloxone to reverse the effects of the codeine overdose
E	Take legal advice as to what you should do next

Explanation

Treat with naloxone to reverse the effects of the codeine overdose

Depression is common in the early stages of Huntingdon's and responds very well to treatment. His wife has given a reliable history that he was depressed at the time of the overdose and as such he was not able to make a rational decision to end his life. Equally, you or his wife should not make a decision to withdraw treatment and you have little time either to consult legal advice or a senior. He will respond meanwhile to naloxone to reverse his opiate overdose. SSRIs are the first line choice for managing depression associated with Huntingdon's disease. Other classes of anti-depressants and ECT are usually used for those patients who are poorly responsive to or for whom SSRIs are inappropriate. Bipolar disorder may also occur in patients with Huntington's, although it is less common than depression alone.

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Responses Correct:	0
Responses Incorrect:	18
Responses Total:	18
Responses - % Correct:	0%

A 66-year-old man presents to the clinic with his wife. He was started on a selective serotonin-reuptake inhibitor (SSRI) antidepressant 2 weeks ago because of severe depression. His depression appeared to have been triggered by the death of his pet dog, which he had for 15 years. His wife complains that she hasn't seen any improvement in the 2 weeks he had been on the antidepressant, and is further worried by the pronouncement in the press that there is an increased suicide rate among patients taking SSRIs.

How would you best advise this couple?

A	Patient should continue with the SSRI but it will probably not be successful
B	Patient should discontinue the SSRI
C	More time is needed for the SSRI to start having a therapeutic effect
D	Media reports are fabrications
E	Their concerns are baseless

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Normal Values

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Explanation

SSRIs are better than the older tricyclic antidepressants in that they are free from sedative and anticholinergic side effects. SSRIs are also safer in overdose and compliance is better. Recently there have been media reports linking SSRI uptake to increased suicide rate. The couple should be reassured that there is still no evidence of increased suicide among SSRI users. Depending on how convinced the couple is about media reports, tact is needed and a compromise struck on whether to change to an alternative antidepressant or continue with the SSRI. SSRIs should be given more time before antidepressant effects are seen. SSRIs are contraindicated in under-18 year olds.

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An 18-year-old man is admitted to A&E after collapsing at a dance party. He is drowsy but oriented and able to answer questions. This was his first week at university and he had decided to go out to a dance party with his friends. He was given some 'tablets' at the party to make him more relaxed and he was advised to drink a lot of fluids. All he remembers was that he went onto the dance floor and everything blacked out. When he came round, he was lying on the floor with people standing all around him and then he was brought to the hospital. On examination, his temperature was 37.1°C, blood pressure was 140/85 mmHg, and his pulse was 104 bpm and regular. Apart from being slightly drowsy, his neurological examination was essentially normal.

Blood results:

Na^+	123 mmol/l
K^+	3.2 mmol/l
Urea	1.8 mmol/l
Creatinine	67 μmol/l
Hb	12 g/dl
WCC	5×10^9/l
MCV	90 fl
PLT	200×10^9/l

What is the most appropriate step in the immediate management of this patient?

A	Restrict fluid intake
B	Give dantrolene 1 mg/kg intravenously
C	The patient should be given intravenous hypertonic saline solution
D	Give metoprolol 5-10 mg intravenously
E	Give diazepam 0.1-0.3 mg/kgPO

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Calculator

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Explanation

Ecstasy is the common usage name for 3,4-methylenedioxymethamfetamine, which is psychoactive drug. It is a class A drug and is illegal in the UK. It is commonly used at dance parties and changes the mood through its effects on dopaminergic and serotoninergic pathways. It has a short duration of action of about 4–6 hours and is usually ingested in the dose of 75–150 mg orally. It effects are said to relax the users and make them morefriendly to other people. Its side effects are unpredictable and include: nausea, sweating, hypertension, tachycardia, disseminated intravascular coagulation and liver failure. Deaths have been reported from heat stroke and water intoxication. Recognised psychiatric disturbances include: depression, anxiety, psychosis, hallucinations and panic attacks.

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A 34-year-old builder is admitted with an acute inferior myocardial infarction and is thrombolysed immediately. His risk factors for ischaemic heart disease include smoking 40 cigarettes a day and hypercholesterolaemia. He is a heavy drinker but denies any illicit drug use. The following day he becomes tachycardic and sweaty. Although his ECG shows no new ischaemic changes, there is a lot of baseline interference due to the development of a tremor.

What is the appropriate next step in his management?

A	Re-thrombolyse
B	Give chlorphenamine and hydrocortisone
C	Transfer to a cardiac surgical centre
D	Commence broad-spectrum antibiotics
E	Commence a reducing course of benzodiazepines

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Explanation

Given the life style of this gentleman and the symptoms he has developed, it is likely that he is a heavy drinker and the most likely diagnosis here is that he is suffering withdrawal symptoms.

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